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
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LEVYING CHARGES ON PRIVATE PARKING: LESSONS FROM EXISTING PRACTICE

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ABSTRACT

Managing parking is a well established mechanism for controlling car use. But in many countries, a significant proportion of parking space is owned or leased by the private sector and so is beyond the direct control of the local transport authority.

One solution currently being considered in the UK, is the idea of imposing a levy on businesses for utilising private parking spaces. However, while the legislation enabling local authorities to introduce such a charge was passed in 2000, only one local authority (Nottingham) retains an interest in the measure and it is still uncertain as to whether it will eventually be implemented.

This paper briefly reviews the private parking problem and the range of policy instruments currently utilised throughout the world where private parking spaces are controlled by Local Authorities. It then draws on a number of vignettes where private parking levies have been introduced elsewhere in the world examining how the use of such policy options might be utilised more extensively and effectively. Finally the paper offers lessons that can be of use when seeking to implement a private parking levy scheme.

INTRODUCTION

Between 1995 and 2002, vehicle kilometres travelled in Great Britain increased by 11.9%, and in the United States by 17.7% (Department for Transport 2005). This ‘love affair with the car’ is understandable at the individual level given the numerous benefits of convenience, comfort, flexibility, personal space and low perceived cost derived from their use. Unfortunately, at the local, regional and national levels there are many social, environmental and economic disbenefits of the car, and with the rapid rise in car user these are becoming increasingly evident.

Controlling access to parking spaces has long been considered one of the most effective tools at the disposal of local authorities to reduce car use. For example, in the UK, the seminal *Buchanan Report* (UK Ministry of Transport 1963), states that “*everything points to the immediate importance of parking policy*”. Meanwhile Wigan and Broughton notes that the “control of parking space provision and manipulation of tariff structures and levels for parking services are the best established means – other than the crude device of simple bans on vehicle movement or access – of furthering policies of traffic restraint”.

Care needs to be taken however, when restricting parking since as stated by Roth (1967):

“there is a very strong case for the removal of parking subsidies of all kinds. But the idea that parking should be subject to restraints above the costs of providing the parking space is a completely different proposition... Measures to relieve traffic congestion by parking restrictions would favour those whose vehicles pass through city centres without parking there, and would restrict only those who live, work or trade in the area under restriction... When the effects of city activity are taken into account, it becomes difficult to understand how anybody who wishes the city to survive as a centre of trade and amenity can advocate encouraging through traffic at the expense of parking traffic... The policy of relieving congestion in the streets by parking restriction is thus of doubtful value.”

Further, Verhoef et al (1995) reports that parking policies remain very much a second best option to road user charging, and tend to be considered only because they may receive broader social acceptance and be easier to introduce – i.e. have a political advantage.

This paper seeks to identify a typology of parking control, reviews a range of instruments worldwide both market and non-market that attempt to deal with private parking spaces and details a number of vignettes of direct charging mechanisms. Finally, a number of lessons can be learnt with respect to the implementation of such schemes.

TYPOLGY OF PARKING CONTROL

Parking policies can only be applied to spaces where a local authority can exert some form of regulatory or fiscal control. The following table provides a categorisation of the types of parking to be found in the majority of urban areas.

TABLE 1 Typology of Car Parking Spaces

Ownership of car parking spaces:	Users of spaces:	On-street or Off-street
Local authority controlled:	General Public	On street
	General Public	Off street
Privately owned:	General Public	Off street
	Private Non Residential Parking (PNR)	Off-street
	Residents	Off street

The local authority provide car parking and it can be classified as either on-street or off-street. Of these, off-street is in many respects the easiest to control through rationing spaces and altering prices – generally with the objective of encouraging shoppers but discouraging commuters. More complicated is the issue of on-street parking. Here, the removal of spaces has the dual effect of making the road wider and limiting the number of points where vehicles can terminate their journey. There is also the issue of enforcement, as illegal parking can reduce the effectiveness of the policy. Overall, there is often an uneasy tension in parking policy between the objectives of local economic development and vitality, raising revenue from the parking charge and parking as a transport demand management measure. Implementing parking policies on publicly controlled spaces is difficult enough, but at least the ways and means to do this are widely known and understood. This is not the case with privately-owned spaces.

As can be seen from Table 1, privately-owned spaces can be categorised by the type of user:

- those that are provided for use by the general public (or organisations for a fee) by companies such as NCP, BAA, or other car park operators;
- those for use by particular groups non-residential (employees, visitors and users or customers); and
- those for use by residents.

The problem is that local governments in many countries throughout the world have historically required developers to provide adequate parking to serve the new developments as a condition of receiving planning permission with the consequence that a sizeable proportion of the existing off-street car parking spaces in towns and cities are privately owned and controlled. For example, MTRU (1995) reports that in a sample of 17 major UK cities, 43% of parking spaces are PNR. Meanwhile Le Masurier et al (2000) reports that around 40% of the total parking in Nottingham, UK are private non residential spaces, of which half (around 4,000) were workplace PNR, while in the City of Westminster, UK PNR spaces accounted for 50% of all spaces, of which approximately half (12,000 spaces) were workplace PNR.

While this ‘minimum parking’ requirement policy approach has been addressed in recent years (Department for Transport 2002), such that local authorities now have an element of control over *proposed* private parking spaces through the planning process, in only a few cases is the problem of *existing* privately owned parking spaces being tackled by local authorities. Plowden (1983) states that the main problem found with parking control in Britain has been ‘the great difficulty in making it comprehensive’. He continues that ‘in addition to garages or other places attached to people’s residences, many bits of private land, even in city centres, are used for parking, without the local authority being able to exercise control’ and he concludes that if a local authority was ‘able to acquire control over such spaces if necessary, [then] parking controls could provide adequate means of direct limitation of car use in many towns.’

PARKING AND CONTROL MECHANISMS – INFORMATION AND REGULATORY APPROACHES

There are a number of mechanisms available for targeting private parking providers.

Perhaps the simplest method involves furnishing providers with information on the parking problem and in particular details on just how expensive it is to provide and maintain each car parking space. The intention is to change organisational perception by appealing to their ‘commercial rationale’. To date, such information has generally been provided to companies through organisations such as the Association for Commuter Transport and the European Platform on Mobility Management, and Government initiatives. For example, ‘*The Benefits of Green Transport Plans*’ (1999) provided a number of cost estimates, noting that Hewlett Packard estimated each surface parking space to cost £800 (\$1,400) to build, plus £111 (\$195) a year to maintain at its site on the edge of Bristol. In addition, Transport Energy (2003) notes that elements contributing towards the cost of parking include security, lighting, CCTV, signing, parking barriers, pay and display machines (and the cost of collection from the machines and enforcement), tarmac, white lining and car park maintenance. It also points out that companies need to consider the land acquisition or opportunity cost of the land, the rent or notional value based on the construction cost and business rates.

More drastically, local authorities have used various forms of regulation to impinge on private car parking provision. For instance, one mechanism aimed at residential as opposed to non-residential spaces occurs in parts of Japan, where since December 1958 the Garage Law (Parking Places Law) requires that prospective car owners have a registered parking space and submit certification of such *shako shomeisho* to the authorities declaring the existence of such a space (Ishikawa Foundation 2005).

In Santa Monica, California, the local council introduced a mandatory Parking Cash Out programme for firms of 50 or more employees in order to meet emissions reduction requirements set by Clean Air Laws. Such employers are required to offer all eligible employees the option of a cash allowance equivalent to the parking subsidy in lieu of subsidised parking (City of Santa Monica 2005).

Meanwhile in Boston US, also as a result of air pollution legislation, a parking freeze was implemented in the mid 1970s. Initially, the freeze affected only commercial parking in particular areas (such as Logan Airport), but the types of parking now include all off-street motor vehicle parking spaces and the areas affected have steadily spread to localities such as Cambridge, the City of Boston, East and South Boston. Elsewhere, Portland, Oregon also capped its downtown spaces in 1975, but increased the number of spaces during the 1980s (City of Boston 2001). Closely related to the parking freeze idea, is the concept of commercially trading spaces within local areas. Such a scheme was introduced in Milan in 1985, with Rome, Trieste, and Turin following suit, while the UK city of Norwich considered the approach during the mid 1990s (MTRU 1992, 1995).

Information measures tend not to have more than a marginal impact on travel behaviour, although they form an important element in any package of TDM measures.

Regulatory (and physical) measures tend to aim at limiting duration or arrival times or specifying those people who may park. Their main effect is to force such car drivers to search for other spaces which are still available to them thus imposing a greater penalty on those who arrive later to park rather than necessarily on those with the least need to do so (May 1999). Such measures are however, unlikely to relieve congestion or environmental problems significantly and they will also introduce new costs of administration and enforcement. Pricing systems are better able to match demand to supply, reflect the differing needs of drivers, can reduce car use, and hence relieve congestion and aid in the improvement of the environment whilst also providing a source of net revenue.

PARKING CONTROL MECHANISMS – PLACING A LEVY ON PRIVATE PARKING SPACES

There are several ways of pricing private parking provision. For example, parking levies that apply to revenues raised by private car parking operators are charged in cities across the USA including San Francisco, Baltimore, New York, Pittsburgh, Washington DC and Bainbridge Island and Sea-Tac in Washington State (Litman 2005, KT Analytics 1995, Washington State Department of Transportation 1999). Other options include the idea of implementing Differential Rating of Car Parking Adjacent to Business Premises so as to increase the relative cost of parking spaces, and charging VAT on private parking spaces (if they do not already do so).

UK Workplace Parking Levy

The most obvious use of the fiscal system though, is to impose some form of direct levy on parking. In Britain, the workplace parking levy was first proposed by the UK Government in the Consultation Document '*Breaking the Logjam*' in 1998 (DETR 1998). It became law in England and Wales as part of the Transport Act (2000) but in Scotland the workplace parking levy option was abandoned. The levy provides local authorities with optional powers to charge organisations according to the number of employee parking spaces available on their premises.

While initially the UK Government expected a great deal of local authority interest in adopting the levy due to the associated hypothecation for improving

transport infrastructure - *Transport 2010 – The Ten Year Plan* assumes that 12 such schemes would be in place by 2010 (DETR 2000) - local authority enthusiasm has since waned. For example, in the West Midlands, seven local authorities were initially interested in introducing the levy, but even Birmingham City Council, the prime mover in the plan, has now dropped the idea entirely. Indeed only in Nottingham is such a scheme still being actively pursued, and even here the City Council is struggling to convince businesses of the benefits the levy would achieve. The question then, is why?

Local authorities need to take account of the business community. In a position paper on congestion charges and workplace parking levies, the Confederation of British Industry stated that it opposed parking levies due to the mechanism being less effective at reducing congestion and more likely to be economically damaging than road user charging – because the charges target only businesses (CBI 1999). It added that before such a levy could be implemented, adequate alternatives would need to be in place; exemptions should be available for businesses with effective travel plans or parking charges; the levy should not apply to supermarket spaces (because food shopping often involves heavy loads); and there should be a minimum threshold, since most sites need a minimum level of parking for servicing purposes.

In a survey of Scottish 52 businesses, Wang and Sharples (1999) finds that 75% were not in favour of introducing a levy without a commitment as to how the money raised would be used. In terms of their responses if such a charge were in place, 30% indicated that they may reduce the number of parking spaces, while 35% suggested it would make no difference. Almost two-thirds responded that the levy would not induce them to relocate (less than 6% felt it would).

In terms of Birmingham, Pass (1999) suggests that businesses echoed the concern of the CBI in that businesses were the only contributors to the tax, and questioned the effectiveness of a £250 (\$440) tax (equivalent to £1 or \$1.80 per working day) in reducing congestion. Ultimately it reported that “the small and uncertain levy will not deliver large enough improvements fast enough to cut congestion but will dissuade investors – costing the city more than it will raise in new money”.

Gerrard et al (2001) evaluates the attitudes of businesses to the parking levy and road user charging scenarios in Cambridge, Norwich and York and found they perceive that congestion and pollution would be reduced by the levy, but that 72% of them expected a negative economic impact to a parking levy - particularly profitability and their ability to recruit and retain staff. It also found that 54% responded that their next location decision would be influenced by the introduction of a workplace parking levy.

Bonsall and Milne (2003) suggests the lack of progress in implementing workplace parking levies is due to a number of factors. Firstly, there is opposition among businesses concerned that new companies may be put off moving into their area when faced with additional costs. Second, there is concern that existing companies might relocate elsewhere. Third, there are fears that the levy will be difficult and expensive to administer and that the measure will be seen as politically unpopular. Finally, the delay in implementing legislation seems to have weakened the

political momentum in terms of introducing such a potentially controversial transport policy.

The following offers four vignettes detailing where such levies have been introduced around the world from which a number of lessons can be drawn.

The Parking Licence Fee, Perth, WA, Australia

Perth, Western Australia is one of the most car dependent cities in the world. In response to this, in 1991 the State Government of Western Australia and the City of Perth published the Perth Parking Policy and the Perth Metropolitan Transport Strategy. One measure identified was a 'parking licence fee' although it was not until 1999 that this was adopted.

Under this instrument, all on- and off-street parking apart from residential spaces within the Perth Parking Management Area are licensed (Brown G, Western Australia Department of Transportation, August 2001 (unpublished data)). In total, exemptions applied to around 6,000 of the 58,500 licensed spaces – either because they were used by particular categories of users or because the organisation had only five or less spaces. Legally the licence fee is a tax for which property owners are liable, due to them being less mobile, easier to trace and being fewer in number than tenants. In practice, tenancy agreements tend to pass on the charge to the tenant.

Any money raised must be spent on improving the access and amenity of that area and so it is earmarked to fund the Central Area Transit (CAT) bus system. This clear link between charge and benefit is perceived to be why the expected opposition to the fee did not materialise. To reduce the level of parking for some of the year and to make the fee more acceptable, owners can vary the number of licensed spaces if they advise the Government of the change in advance so property owners pay only for the spaces they use.

Overall, during the first year of operation the fee generated \$A3.35m (\$2.5m). Non-payment at \$A65,000 (\$50,000), was less than 2% of the total due. Parking supply fell by nearly 10% and there are 6,000 fewer spaces than recorded in a 1998 parking survey. Most of the spaces taken out of use were situated near the edge of the Parking Area and remote from areas of high parking demand. The evidence suggests businesses decommissioned spaces to meet the five spaces or less exemption, while property owners are now more likely to act to stop people illegally using their spaces.

A number of lessons emerge from the Perth vignette in terms of implementation. First, the system should be simple to understand and as much information as possible should be supplied to educate businesses as to why the fee is being introduced. Second, the fee was just one part of a whole package of transport measures, and crucially the link between the introduction of the parking licence fee and the improvement in public transport in the central area was vigorously promoted from the beginning. Finally, targeted exemptions helped improve acceptance of the parking licence fee among businesses. Overall, the level of the parking licence fee imposed on businesses is low and even though it is spread over a broad base of liable payers, the sum raised is relatively small.

Parking Space Levy, Sydney, New South Wales, Australia

A second Australian scheme, the Parking Space Levy (PSL), operates in Sydney and was first introduced in the Sydney Central Business District and North Sydney on 1 July 1992 under the Parking Space Levy Act (Thoms P, New South Wales Department of Transport, June 2001 (unpublished data)). Under the Act, businesses were initially required to pay \$A200 (\$150) per parking space per year. This however doubled in July 1997, and again in May 2000, when the Parking Space Levy Amendment Bill 2000 was enacted.

Several categories of spaces that are exempt from the charge, including spaces designated for registered disabled people, residents, charities; or for loading/unloading bays. Parking Space Levy fees are collected by the NSW Office of State Revenue (OSR) on behalf of the NSW Department of Transport. Any business within one of the six designated PSL areas must register with OSR and make PSL payments to OSR on the basis of their liability. Unlike in Perth, the PSL applies only to private off-street private parking used by tenants of commercial office buildings and requires the owner to pay a tax on all parking spaces on their property regardless of whether they are used or not.

Revenue may only be spent on infrastructure and maintenance, and not on subsidising operations. Although restrictive, this provision does help prevent the levy being used to replace public transport funding from general funding sources. So far, this has included interchanges, improving public transport infrastructure, such as the development of rapid bus-only transitway bus and light rail stations, and the improvement of electronic passenger information systems. The annual revenues collected since the introduction of the Levy in 1992 have been highly variable, but have been mainly influenced by the increase in the levy charge per space, the extension of the scheme in 2000 and by new development within the PSL areas. Money raised in the 2002-2003 financial year was around \$A45m (\$35m).

Evidence on traffic impacts is scant. The New South Wales Ministry of Transport justifies the levy by stating that 70% of all weekday trips in Sydney are by car and that the most common reason given for travelling to work by public transport was to avoid parking problems and/or costs (42.7%) (New South Wales Ministry of Transport 2003). Lynn (2000) however cites figures from the Property Council of Australia which suggest that the average number of vehicle trips each weekday in Sydney and its surroundings increased from 6.3 million in 1991 to 7.5 million in 1997 and that 85% of traffic that enters the city is through traffic, which a levy would not impact on. Finally, 466,000 vehicles travel in the City of Sydney each day but there are only in the region of 36,000 off-street bays. Thus the levy effectively targets only 7.7% of the city's traffic.

Parking Places (Surcharge) Singapore

Singapore is universally known for its radical transport demand policies to reduce vehicle use and ownership levels – in particular the Electronic Road Pricing and Vehicle Quota System. What is less well known is that until the late 1990s, parking policy in Singapore was a key element in the national traffic management strategy to manage traffic levels in the city centre and encourage public transport use (Chan S H, Wong K and Lim L C, Land Transport Authority, Singapore, July

2002(unpublished data))(Singapore Statutes Online 2002). Specifically, the Parking Places (Surcharge) Act of October 1975 charged a monthly fee of \$60 (\$35) a space on non-residential parking. This was introduced at roughly the same time as the Area Licensing Scheme – the forerunner of the ERP - as well as a series of park-and-ride sites on the fringe of the CBD and significant public transport improvements. The fee raised \$40m (\$25m) a year which was paid into the general government revenue account. With the introduction of the Electronic Road Pricing Scheme in 1998 and the Certificate of Entitlement scheme (whereby the number of cars in Singapore is effectively rationed) combined with the severe economic recession, control of parking was relaxed and is now seen as being relatively less important. Despite this, a nominal \$1 (\$0.60) per space per month licence fee is still collected and raises in the region of \$1m (\$0.6m) a year. The Land Transport Authority pays the Urban Redevelopment Authority around \$30,000 (\$18,000) a month to administer it.

Traffic impacts are difficult to quantify (due to the parallel introduction of the ALS), but the overall effect of the package initially reduced traffic to the central zone by 44%. The main reasons for this reduction however, were that vehicles avoided the central area and varied times of travel – there was little evidence of a significant modal switch to public transport (Chin 2002). As a result, it would seem that the parking surcharge had relatively little impact on traffic levels.

Parking charges and levy, Heathrow, Gatwick and Stansted Airports, London, UK

A variation on the parking levy occurs at Heathrow, Gatwick and Stansted where airport operator BAA earmarks tenant companies £12 (£20) of the annual staff car parking pass to improve public transport access (Lamb J, BAA Stansted, June 1999 (unpublished data)). In addition, passengers contribute an average £0.25 (\$0.40) for every parking transaction. The idea for introducing a dedicated parking levy first arose at BAA during 1995, with the first passenger levy introduced at Heathrow in April 1996, with Gatwick following in June 1998 and Stansted in July 1999. The staff levy was introduced at Heathrow, Gatwick and Stansted in 1999. The effect however is negated as the majority of employers on the airport sites do not pass any of the cost of car park passes on to their staff. Non-BAA operated Birmingham Airport (UK) also charges firms for parking spaces of £170 (\$300) a year (Holt S, Birmingham International Airport, April 2004, (unpublished data)).

CONCLUSIONS

Whilst controls of public parking spaces by pricing and regulatory control have been widely implemented, the vignettes illustrate that there still remains scope for reducing traffic movements by encouraging private providers to reduce their parking provision. However, given that the influence of private parking providers via information and exhortation is relatively ineffective on its own and that regulatory measures have limitations, then the use of financial incentives would appear to be a logical way forward.

In terms of financial incentives then the vignettes have presented a number of ways in which this measure can address the issue of privately owned parking spaces. Local authorities throughout the world have been able to impose a financial regime with some success. As for implementation then it is crucial that businesses are informed (and ideally involved) and that there is a clear link between the levy and

highly visible improvements to transport alternatives to the car. Further, levies will only work if the scheme takes place in a location where effective complementary parking controls are in force, and where public officials are empowered to access and monitor activities in privately-owned car parks.

There are also negative effects however. Firstly, employers will almost certainly absorb the charge in most cases not passing it on to the end users – necessary if a sizeable modal shift from the car is to be achieved. Secondly, there are liable to be difficulties where a group of employers share the same car park. Finally, there is the ‘beggar my neighbour’ effect, whereby employers may be encouraged to re-locate either to out-of-town locations, or to neighbouring towns that do not impose the levy to cut costs. This is one issue of rather less importance in the Perth, Sydney and Singapore cases than it would be in other geographical areas.

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